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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,511	09/29/2006	Shinji Yasuhara	4731-0136PUS1	9948
2292 7590 12/23/2010 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
NGUYEN, VU Q				
ART UNIT		PAPER NUMBER		
3657				
NOTIFICATION DATE		DELIVERY MODE		
12/23/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/587,511

**Applicant(s)**

YASUHARA ET AL.

**Examiner**

VU Q. NGUYEN

**Art Unit**

3657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3, 4, 6, 7, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3, 4, 6, 7, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-4, 6-7, and 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "wherein each of the link plates has side surfaces covered by a coating material having reduced contact surface pressure against an adjacent link plate to a proper level by abrading the contact surface through a test-driving process of the chain after assembly of the link plates are mutually overlapped with a surface pressure higher than a proper surface pressure for the chain" in lines 8-11. It is unclear exactly what is imparted by this limitation. Furthermore, it is unclear exactly what coating material is imparted by this limitation. First, the language of the limitation is generally confusing. At the outset, the Examiner suggests changing "a coating material having reduced contact surface pressure against an adjacent link plate to a proper level" to --a coating material having a contact surface having a surface pressure against an adjacent link plate reduced to a proper level-- for better form and to avoid lack of antecedent basis issues. Still, it is unclear exactly what is imparted by the recitations of "a proper level" and "a proper surface pressure." The term "proper" is a relative term which renders the claim indefinite. The term "proper" is not defined by the

claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Exactly what is considered a "proper" level and/or surface pressure? The Examiner assumes that the above-mentioned limitations are functional/intended use recitations of the coating material.

Claims 6-7 are rejected for the same reasons as set forth above.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4, 6-7, and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5728021 (van Rooij) in view of U.S. Patent No. 6509099 (Urata).

Regarding claim 3, van Rooij discloses a power transmission chain (31) comprising: a plurality of link plates (33, 53) individually including through-holes (35, 37), and arranged as mutually overlapped in a thicknesswise direction thereof (see Figs. 3-4); and a plurality of pins (45, 47) inserted through the through-holes for flexibly interconnecting the plurality of link plates.

Regarding claim 3, van Rooij does not disclose expressly wherein each of the link plates has side surfaces covered by a coating material having reduced contact

surface pressure against an adjacent link plate to a proper level by abrading the contact surface through a test-driving process of the chain after assembly of the link plates are mutually overlapped with a surface pressure higher than a proper surface pressure for the chain.

Urata teaches applying a coating material to plates, the coating material (zinc-phosphate coating having a lubrication component; see column 4, lines 1-14 and 19-21) capable of being abraded (the Examiner submits that the zinc-phosphate coating having the lubrication component is subject to wear and thus, can be said to be capable of being abraded, at least to some degree).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the plurality of link plates as taught by van Rooij to be covered by a coating material as taught by Urata. The motivation for doing so, as taught by Urata, would have been to merely provide a surface treatment which offers, among other things, excellent corrosion resistance and lubrication (see column 2, lines 57-61). In doing so, the Examiner submits that the coating material of Urata would at least be capable of being abraded to a certain degree, and thus capable of performing the functional/intended use limitations of the claim (as best understood; see the 35 U.S.C. 112, 2nd paragraph rejections above).

Regarding claim 4, see Urata and column 4, lines 19-21; column 8, lines 27-30 and 42-43 (see the disclosure of calcium or zinc stearate for a lubrication component).

Regarding claims 10-11, see Fig. 5 of van Rooij and column 4, lines 36-45 disclosing a power transmission assembly comprising pulleys having a pair of conical sheave surfaces (65, 67) opposing each other.

Regarding method claims 6-7, the Examiner submits that the method steps, as broadly recited and as best understood (see the 35 U.S.C. 112, 2<sup>nd</sup> paragraph rejections above), are met by meeting the structural limitations as set forth above.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. See the new 35 U.S.C. 112, 2<sup>nd</sup> paragraph rejections above. In light of the indefiniteness of the amended claim language, the Examiner submits that the combination of van Rooij and Urata sufficiently meets the amended claim limitations, as best understood.

Furthermore, in light of the originally filed specification at paragraph 0039, it appears that the properties of the coating material are attributed to the coating material being formed by a zinc-phosphate coating process followed by a stearate lubrication coating process. The Examiner assumes that such properties would meet any functional/intended use recitations of the coating material (the amended claim language appears to be functional/intended use recitations). Urata discloses a zinc-phosphate coating (see column 4, lines 1-14) followed by a stearate lubrication coating (see column 4, lines 19-21 and column 8, lines 27-30 and 42-43). Thus, it is still unclear how Applicant's coating material is distinct from Urata's coating material.

For at least these reasons, the Examiner maintains the rejection of the claims and submits that the coating material of Urata meets the relevant limitations of the claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VU Q. NGUYEN whose telephone number is (571)272-7921. The examiner can normally be reached on Monday through Friday, 11:30 AM to 8:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/V. Q. N./  
Examiner, Art Unit 3657

/Robert A. Siconolfi/  
Supervisory Patent Examiner, Art  
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